

WHAT IS CLAIMED, IS:

1. A method for generating a screened representation of an image for printing said image, the method comprising:
 - 5 generating a first dot of said screened representation, wherein said first dot has a first dot size of at least two microdots; repeating said dot generation step until a first number of said first dots are generated;
 - arranging said first dots in a frequency modulated pattern;
 - 10 selecting a second number of second dots out of said first dots, wherein said second number is at most equal to said first number and larger than zero; and enlarging said second dots by adding at least one microdot to each of said second dots.
- 15 2. The method according to claim 1 further comprising:
 - using a third number, at most equal to said first number, of dots having said first dot size for reproducing portions of said image having densities at most equal to a predetermined density;
 - 20 and using said enlarged second dots for reproducing other portions of said image having densities larger than said predetermined density.
- 25 3. The method according to claim 1 further comprising:
 - generating a threshold mask array for said frequency modulated pattern; and subdividing said threshold mask array into a plurality of parcels wherein each of said parcels has a parcel size larger
 - 30 than said first dot size.
4. The method according to claim 3 further comprising enlarging said second dots to equal said parcel size.

5. The method according to claim 4 further comprising generating additional dots having said second dot size.

6. The method according to claim 2 further comprising:

5 generating a threshold mask array for said frequency modulated pattern; and

 subdividing said threshold mask array into a plurality of parcels wherein each of said parcels has a parcel size larger than said first dot size.

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7. The method according to claim 6 further comprising enlarging said second dots to equal said parcel size.

8. The method according to claim 7 further comprising generating
15 additional dots having said second dot size.

9. A method for generating a screened representation of an image for printing said image, the method comprising:

20 generating a threshold mask array for a frequency modulated pattern;

 subdividing said threshold mask array into a plurality of parcels wherein each of said parcels has a parcel size of EndSize x Endsize microdots; and

25 generating a first number of first dots of said screened representation in said threshold mask array, wherein each of said first dots has a size of BeginSize x Beginsize microdots with Beginsize at least equal to two and smaller than Endsize.

10. The method according to claim 9 further comprising:

30 selecting a second number of second dots out of said first dots, wherein said second number is at most equal to said first number and larger than zero; and

 enlarging said second dots by adding at least one microdot to each of said second dots.

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11. The method according to claim 10 further comprising enlarging each dot of said first number of first dots to a size of EndSize x Endsize microdots.
- 5 12. The method according to claim 11 further comprising generating additional dots having a size of to EndSize x Endsize microdots.
13. The method according to claim 9 wherein BeginSize equals two and Endsize equals three.
- 10 14. The method according to claim 1 further comprising exposing a printing plate precursor according to said screened representation of said image.
- 15 15. The method according to claim 2 further comprising exposing a printing plate precursor according to said screened representation of said image.
16. The method according to claim 9 further comprising exposing a
20 printing plate precursor according to said screened representation of said image.
17. The method according to claim 10 further comprising exposing a
25 printing plate precursor according to said screened representation of said image.
18. A printing plate having a screened representation of an image for printing said image, the screened representation obtained by the method of:
- 30 generating a first dot of said screened representation, wherein said first dot has a first dot size of at least two microdots;
repeating said dot generation step until a first number of said first dots are generated;
arranging said first dots in a frequency modulated pattern;

selecting a second number of second dots out of said first dots, wherein said second number is at most equal to said first number and larger than zero; and

5 enlarging said second dots by adding at least one microdot to each of said second dots.

19. A printing plate having a screened representation of an image for printing said image, the screened representation obtained by the method of:

10 generating a threshold mask array for a frequency modulated pattern;

subdividing said threshold mask array into a plurality of parcels wherein each of said parcels has a parcel size of EndSize x Endsize microdots; and

15 generating a first number of first dots of said screened representation in said threshold mask array, wherein each of said first dots has a size of BeginSize x Beginsize microdots with Beginsize at least equal to two and smaller than Endsize.

20 20. A data processing system for generating a screened representation of an image for printing said image by:

generating a first dot of said screened representation, wherein said first dot has a first dot size of at least two microdots;

25 repeating said dot generation step until a first number of said first dots are generated;

arranging said first dots in a frequency modulated pattern;

selecting a second number of second dots out of said first dots, wherein said second number is at most equal to said first number and larger than zero; and

30 enlarging said second dots by adding at least one microdot to each of said second dots.

21. A data processing system for generating a screened representation of an image for printing said image by:

generating a threshold mask array for a frequency modulated pattern;

subdividing said threshold mask array into a plurality of parcels wherein each of said parcels has a parcel size of
5 EndSize x Endsize microdots; and

generating a first number of first dots of said screened representation in said threshold mask array, wherein each of said first dots has a size of BeginSize x Beginsize microdots with Beginsize at least equal to two and smaller than Endsize.

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22. A computer program product for generating a screened representation of an image for printing said image, the computer program product comprising:

15 first program instructions for generating a first dot of said screened representation, wherein said first dot has a first dot size of at least two microdots;

second program instructions for repeating said dot generation until a first number of said first dots are generated, wherein said first dots are arranged in a frequency modulated pattern;

20 third program instructions for selecting a second number of second dots out of said first dots, wherein said second number is at most equal to said first number and larger than zero; and

fourth program instructions for enlarging said second dots by adding at least one microdot to each of said second dots.

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23. The computer program product according to claim 22 further comprising a computer readable medium wherein said first, second, third and fourth instructions are recorded on said medium.

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24. The computer program product according to claim 22 further comprising:

fifth program instructions for using a number, at most equal to said first number, of dots having said first dot size for

reproducing portions of said image having densities at most equal to a predetermined density; and

sixth program instructions for using said enlarged second dots for reproducing other portions of said image having densities
5 larger than said predetermined density.

25. A computer program product for generating a screened representation of an image for printing said image, the computer program product comprising:

10 first program instructions for generating a threshold mask array for a frequency modulated pattern;

second program instructions for subdividing said threshold mask array into a plurality of parcels wherein each of said parcels has a parcel size of EndSize x Endsize microdots; and

15 third program instructions for generating a first number of first dots of said screened representation in said threshold mask array, wherein each of said first dots has a size of BeginSize x Beginsize microdots with Beginsize at least equal to two and smaller than Endsize.

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26. The computer program product according to claim 25 further comprising a computer readable medium wherein said first, second and third instructions are recorded on said medium.